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Attorneys for The Freshwater Trust

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON  
PORTLAND DIVISION

**NORTHWEST ENVIRONMENTAL  
ADVOCATES**, a non-profit corporation,

**PLAINTIFF,**

v.

**UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY**, a United States  
Government Agency,

**DEFENDANT,**

and.

**STATE OF OREGON** and the **OREGON  
WATER QUALITY STANDARDS  
GROUP**, an *ad hoc* coalition

**INTERVENOR-DEFENDANTS.**

Case No.: 3:12-cv-01751-AC

DECLARATION OF JOE S.  
WHITWORTH IN SUPPORT OF THE  
FRESHWATER TRUST'S BRIEF IN  
OPPOSITION TO PLAINTIFF'S  
MOTION FOR SUMMARY  
JUDGMENT ON REMEDY

I, JOE WHITWORTH, declare as follows:

1. I have been employed by The Freshwater Trust (“TFT”) for over 17 years and currently serve as TFT’s President. Founded in 1983 as Oregon Trout, the region’s first wild fish conservation organization, and then later merging with Oregon Water Trust, which partnered with landowners to restore instream flows, TFT is a 501(c)(3) not-for-profit conservation organization with its principal place of business in Portland, Oregon. TFT has a mission of preserving and restoring freshwater ecosystems, in Oregon and nationally, in part through water quality trading programs. TFT is focused on developing the next generation of conservation tools, including water quality trading, and applying those technological tools on the ground to accelerate the pace and scale of restoration. I make this declaration based on my personal knowledge and professional experience.

2. The total maximum daily loads (“TMDLs”) that are the subject of this case are critical to TFT in implementing its mission. The watershed-scale information and analyses contained in the TMDLs provide important data that TFT utilizes to determine where particular restoration activities should be targeted and prioritized. The TMDLs serve as “blueprints” that assist TFT in determining where restoration is most acutely needed and how on-the-ground restoration actions can help mitigate temperature exceedances.

3. For example, in response to the Rogue River Basin TMDL, TFT utilized the TMDL to inform its restoration efforts in the basin. Importantly, the TMDL set the “point of maximum impact” (“POMI”) and authorized water quality trading eligibility upstream from the POMI. As part of the TMDL, the Oregon Department of Environmental Quality (“DEQ”)

established the wasteload allocation and load allocations by distributing the Human Use Allowance (“HUA”) between point and non-point sources with a reserve capacity.

4. DEQ completed a detailed analysis of the nonpoint source causes of heat loading in the Rogue River Basin, which included near-stream vegetation disturbance/removal, channel modifications and widening, hydromodification by dams, diversions, and irrigation districts, and hydromodification through water rights, and other anthropogenic sources. After identifying near-stream vegetation disturbance and removal as a key limiting factor, DEQ established “effective shade curves” for the entire Rogue River Basin, representing the maximum possible effective shade for particular vegetation types in particular places.

5. TFT relied upon these shade curves to identify the appropriate vegetation composition to utilize when restoring sites. TFT used the vegetation information to determine how best to design restoration sites in the basin to achieve greater environmental benefit. TFT also relied on the vegetation height and density information assembled in the TMDL to model the kilocalorie (“kcal”) per day thermal benefits associated with these restored shade-producing trees. TFT models the benefits (or “credits”) of shade produced from revegetation using a DEQ-approved model called Shade-a-lator. These credits values are quantified in the same unit—kilocalories per day—that the TMDL identified for quantifying excess heat loads, and for establishing wasteload allocations for point sources. As such, the Rogue River Basin TMDL is a critical source of information for enabling on-the-ground restoration efforts using water quality trading.

6. TFT relies on the TMDL not just for its vegetation shading projects, but also for information on what additional instream restoration activities to pursue and where. The TMDL notes that temperature impacts are also being caused by direct modification to stream channels,



including changes to channels from road building, flood control, gravel extraction or channel realignment. Based on this information, TFT has targeted instream activities in the basin in addition to riparian revegetation work, thereby improving both temperature and instream conditions for the aquatic species that the water quality standards are designed to protect.

7. Over the last five years, TFT has followed the blueprint of the Rogue River Basin TMDL to significant positive effect. TFT has implemented a number of new riparian revegetation projects that improve the riparian and aquatic habitat as well as generate thermal benefits for tributaries and rivers in the Rogue River Basin

8. For example, relying on the information in the TMDL, TFT has been able to implement ten riparian vegetation projects to assist the City of Medford, Oregon one of the recipients of a TMDL wasteload allocation from DEQ under the Rogue River Basin TMDL, with meeting its TMDL wasteload allocation. At the end of 2016 those projects resulted in 24,026 new linear feet of streamside restoration, which block 419,610,444 kcals/day of solar load from hitting tributaries and rivers in the Rogue River Basin.

9. By 2022, TFT has a contractual commitment to the City of Medford to build enough riparian revegetation projects to ensure that the City's 600 million kcals/day reduction obligation has been satisfied.

10. TFT's experience with the City of Medford shows how important TMDLs are in promoting on-the-ground progress. TFT's contractual work for the City has also enabled TFT to leverage additional restoration opportunities in Rogue River Basin, and to do so in a way that is connected to addressing key limiting factors identified in the TMDL.

11. In addition to contractual commitments with wasteload allocation recipients under TMDLs, TFT has also been successful in utilizing the technical information and priorities

identified in the TMDLs to harness federal funding of restoration and revegetation projects. For example, TFT has helped drive \$4.75 million in Bureau of Reclamation funding into the Rogue River Basin for instream habitat restoration and upland revegetation work that is consistent with the TMDL. These projects directly benefit the salmonid species driving the temperature criteria for which the Rogue River Basin TMDL was established.

12. TFT is also under contract with the Oregon Department of Transportation and the U.S. Bureau of Land Management to help recruit and implement restoration projects in the Rogue River Basin. TFT designs and implements these projects to align with the needs and priorities identified in the TMDL.

13. Additionally, TFT is using Oregon Watershed Enhancement Board ("OWEB") funds to create non-credit additions to City of Medford funded, TMDL-driven credit projects. The TMDL-based trading project is the "anchor" and the OWEB funds help ensure that comprehensive restoration occurs at the site. This funder was identified as a key potential funding source in the reasonable assurance analysis outlined in the water quality management plan for the TMDL.

14. In total, TFT has implemented 21 project sites across the Rogue River Basin, all of which benefit the many species affected by warmer water temperatures.

15. Through 2016, more than 25,000 feet of stream has been protected, 87,825 native trees and shrubs have been planted, 1,459 feet of side channel has been restored, and 137 large wood structures installed as a result of all of TFT's activities in the Rogue River Basin.

16. TFT has fully quantified the environmental benefits of these actions through 2016, which translate into 437,921,017 kcals/day in blocked solar load, 51 pounds/year of

reduced phosphorus loading, 594 pounds/year of reduced nitrogen loading, and 107,949 pounds/year of reduced sediment runoff.

17. In addition to the Rogue River Basin, TFT relies on other TMDLs that have been challenged, which include additional information and analysis on what is causing temperature impacts, information that TFT has utilized in targeting its restoration efforts. The John Day TMDL identified narrative surrogate measures to restore natural channel form in terms of sinuosity, complexity, floodplain connectivity, and cross-sectional dimension. TFT has relied upon this analysis in determining where and what kinds of projects to pursue in the basin.

18. For any of TFT's restoration efforts to happen at scale, ideally there would be predictable demand for restoration projects and a sufficient supply of labor to fulfill that demand. A TMDL helps to create that demand and support that work. To date, TFT has engaged over 30 local subcontractors to complete its work in the Rogue River Basin. TFT would not have undertaken its work in the basin at this scale without the Rogue River Basin TMDL.

19. The local restoration capacity created in response to the watershed-scale information, watershed-scale obligations, and analyses in TMDLs can help scale up restoration economies, including in the Rogue River Basin, to levels of critical mass that did not exist before the TMDL.

20. The legal limbo facing the TMDLs over the last five years has been enough to dissuade would-be water quality trading partners from initiating new or expanded programs. In the two years prior to the TMDL litigation, TFT successfully established five new trading programs. Since then, no new programs have debuted anywhere else in the state.

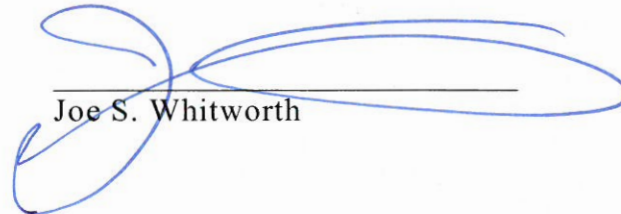
21. Vacating the TMDLs will lead to continued uncertainty, deterring further on-the-ground advances in water quality restoration projects, and perpetuating the current drought in



water quality trading programs, thus depriving watersheds around the state of “anchor tenants for restoration” like those that got off the ground in the Rogue River Basin.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed this 16<sup>th</sup> day of March, 2018 at Portland, Oregon.



Joe S. Whitworth

### **CERTIFICATE OF SERVICE**

I hereby certify that on March 16, 2018, I electronically filed the foregoing document with the Clerk of the Court for the United States District Court of Oregon by using the CM/ECF system. Participants in this case No. 3:12-cv-01751-AC who are registered CM/ECF users will be served by the CM/ECF system.

s/ Jasmine C. Hites

Jasmine C. Hites